



Safety Data Sheet

Report Date 23-Sep-19

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1. Identification

Product Name : HEL-FIRE (WA)
Synonyms : None
Product Use : Herbicide Activator/Buffer/Water Conditioning Agent
Manufacturer/Supplier : Helena Agri-Enterprises, LLC
Address : 225 Schilling Blvd. Collierville, TN 38017
General Information : 901-761-0050
Transportation Emergency Number : CHEMTREC:800-424-9300

2. Hazard Identification



Signal Word : Danger
Skin Irritation : Causes severe skin burns and eye damage.
Eye Irritation : Causes serious eye damage.
Acute Toxicity Oral : No LD50 data available
Acute Toxicity Dermal : No LD50 data available

Hazard Categories : Oral/Dermal/Inhalation Toxicity-4/4/5; Eye/Skin Irritation-1/1A; STOT Single-3; STOT Repeated-2

Hazard Statement : Harmful if swallowed
Harmful in contact with skin
Causes severe skin burns and eye damage
Harmful if inhaled
May cause respiratory irritation
May cause damage to organs (central nervous system, kidneys, liver, neurological disorders) through prolonged or repeated exposure

3. Composition / Information on Ingredients

Component	CAS Number	Weight %
Alkyl amine ethoxylate, monocarbamide dihydrogen sulfate, and 1,2,3-trihydroxypropane.	Proprietary	80.00
Constituents ineffective as adjuvant.	Proprietary	20.00



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4. First Aid Measures

- Eye** : Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing the eye. Call a poison control center or doctor for treatment advice.
- Skin** : Remove contaminated clothing. Rinse skin immediately with plenty of water, continuing for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.
- Inhalation** : Move person to fresh air. If not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.
- Ingestion** : Do not induce vomiting. If fully conscious, rinse mouth with water. Never give anything by mouth to someone who is unconscious or having convulsions. Apply artificial respiration if necessary. Call a doctor or poison control center immediately.
- Indication of Immediate Medical Attention and Special Treatment Needed** : Aspiration of small amounts during ingestion or vomiting may cause severe burns and severe pulmonary injury to the lungs. Aspiration may also cause chemical pneumonitis, which can be fatal.

5. Fire Fighting Measures

- Extinguishing Media** : Use water spray in the form of a fog, dry chemical, foam or carbon dioxide extinguishing agents.
- Specific Hazards Arising from the Chemical** : May produce oxides of carbon, nitrogen and toxic phosphorous compounds under fire conditions.
- Special Fire Fight Proc** : Avoid excessive water. Wear self-contained breathing apparatus and full protective clothing. Treat as a liquid chemical type fire where discharges to the environment are to be controlled as quickly as possible.

6. Accidental Release Measures

- Personal Precautions** : Keep unprotected and unnecessary personnel out of spill area. Wash thoroughly after handling. Do not get in eyes. Avoid contact with skin and clothing.
- Protective Equipment** : Splashproof goggles or face shield, chemical-resistant gloves, long pants and long-sleeved shirt, enclosed boots, impervious apron. Eyewash station and emergency shower should be available nearby. Use NIOSH-approved respirator if ventilation is inadequate.
- Emergency Procedures** : Contain all spills, keeping material out of sewers and drains by diking.
- Methods and Materials for Containment and Cleanup** : For small spills, collect free liquids and place in suitable container for disposal. Absorb remaining liquid with an inert material, such as clay or vermiculite. Sweep up carefully and place in suitable disposal container. Rinse spill area with water, collect and place in containers with material for disposal.

7. Handling and Storage



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- Precautions for Safe Handling** : Do not contaminate water, food or feed by storage and handling. Do not contaminate water sources by run off from cleaning or equipment, disposal of equipment washwater or spray waste.
- Conditions for Safe Storage** : Store in original container only. Keep container tightly closed. Do not allow water to be introduced into the contents of the container. Do not store near heat or open flames. Do not store with oxidizing agents.

8. Exposure Controls / Personal Protection

- TLV/PEL** : Not established for this mixture. TLV for acids is 1 mg/m³.
- Appropriate Engineering Controls** : Ensure adequate ventilation to maintain airborne concentrations below the TLV.
- Personal Protective Equipment** : Splashproof goggles or face shield, chemical-resistant gloves, long pants and long-sleeved shirt, enclosed boots, impervious apron. Eyewash station and emergency shower should be available nearby.

9. Physical and Chemical Properties

- Odor/Appearance** : Clear golden yellow liquid; slight fatty odor.
- Flash Point, °F** : >200 Degrees F.
- Boiling Point, °F** : Not available for mixture
- Melting Point(Freezing point), °C** : Not available for mixture
- Vapor Pressure, mm Hg @ 20 °C** : Not available for mixture
- Vapor Density** : Not available for mixture
- Solubility in Water** : Soluble
- Molecular Formula** : Not applicable, formulated mixture.
- Density, g/mL @ 25 °C** : 1.190-1.230
- Evaporation Rate(Butyl Acetate = 1)** : Not available for mixture
- Octanol/Water Partition Coefficient** : No information found
- pH** : 1.8-2.5 (0.25%)
- Flammable Limits (approximate volume % in air)** : Not available for mixture.
- Auto-ignition Temperature** : Not applicable
- Decomposition temperature** : No information found

10. Stability and Reactivity

- Reactivity** : Hydrogen gas released in reaction with metals.
- Chemical Stability** : Stable
- Hazardous Decomposition Products** : Thermal decomposition in the presence of air produces products including carbon dioxide, carbon monoxide, oxides of nitrogen, phosphorus and sulfur.
- Hazardous Polymerization** : Will not occur



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- Conditions to Avoid** : Avoid bases, strong oxidizing and reducing agents. Avoid contact with many metals including aluminum.
- Incompatible Materials** : Avoid bases, strong oxidizing and reducing agents. Avoid contact with many metals, including aluminum.

11. Toxicological Information

- Acute Toxicity (Oral LD50)** : No LD50 data available. Harmful if swallowed.
- Acute Toxicity (Dermal LD50)** : No LD50 data available. Harmful in contact with skin.
- Acute Toxicity Inhalation LC50** : No LC50 data available. May be harmful if inhaled.
- Likely Routes of Exposure** : Skin, eyes, inhalation
- Skin Irritation** : Causes severe skin burns and eye damage.
- Eye Irritation** : Causes serious eye damage.
- Skin Sensitization** : This product is not expected to be a skin sensitizer.
- Carcinogenic** : Not listed by IARC, NTP or OSHA.
- Chronic Effects** : Specific Target Organ Toxicity (STOT), Single Exposure: May cause respiratory irritation. STOT, Repeated: May cause damage to organs (central nervous system, kidneys, liver, neurological disorders) through prolonged or repeated exposure.
- Other Hazards** : CA PROPOSITION 65 **WARNING**: This product can expose you to chemicals including ethylene oxide, acetaldehyde, and 1,4-dioxane which are known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov.

12. Ecological Information

- Ecotoxicity** : No information found
- Persistence and Degradability** : No information found
- Bioaccumulative Potential** : No information found
- Mobility in Soil** : No information found
- Other Adverse Effects** : No information found

13. Disposal Considerations

- Waste Disposal Method** : This material must be disposed of according to Federal, State or Local procedures under the Resource Conservation and Recovery Act. (May be classified as D002 due to corrosivity, pH<2.0)

14. Transport Information



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UN Proper Shipping Name : Not regulated domestically (highway) if shipped or packaged in containers such as stainless steel or plastic (49 CFR 173.154(d)). Regulated by air (IATA) and vessel (IMDG) as Corrosive Liquid, n.o.s. (contains Monocarbamide dihydrogen sulphate)

Transport Hazard Class : Corrosive (8) - IATA/IMDG

UN Identification Number : UN1760 - IATA/IMDG

Packaging Group : PG III - IATA/IMDG

Environmental Hazards : No information found

Transport in Bulk : No information found

Special Precautions for Transportation : Non-regulated by US ground per 49 CFR 173.154(d).

Freight Classification : Fertilizing Compound, (Manufactured Fertilizer), Liquid, NOIBN (NMFC Item 68140, Sub 6, Class 70)

15. Regulatory Information

National Fire Protection Association Rating :

Health: 2 Fire: 0 Reactivity: 1
Rating Level: (4-Extreme, 3-High, 2-Moderate, 1-Slight, 0-Minimum)

S.A.R.A Title III Hazard Classification (Yes/No) :

Immediate(Acute) Health: Y
Delayed (Chronic) Health: Y
Sudden Release of N Pressure:
Fire: N
Reactive: N

16. Other Information

Data of Preparation/Revision : 23-September-2019